

Myths and Facts: Gas Tankless Water Heater Standards

January 2025

In December 2024, the U.S. Department of Energy (DOE) finalized new efficiency standards for gas tankless water heaters, complementing an earlier final rule strengthening standards for other water heater types. Special interests seeking to undo the standards have made many inaccurate statements about them. Here we provide the facts.

Myth: DOE's new efficiency standards ban gas water heaters.

Fact: The new standards affect less than 10% of gas water heater sales. More than 100 gas tankless water heater models already meet the new standards.

Gas tank and electric tank water heaters are far more common than gas tankless water heaters. DOE estimates that gas tankless water heaters represent about 12% of the total water heater market and 22% of gas water heater sales. In addition, about 60% of gas tankless water heaters sold today already meet the new standards. In other words, the new standards for gas tankless water heaters affect less than 10% of all gas water heater sales.

As of January 2025, there were more than 100 gas tankless water heater models that already meet the new standards, according to a DOE database. Manufacturers will have five years before the new standards take effect to update any less efficient models.

Myth: The standards will harm low-income households and seniors.

Fact: Gas tankless water heaters are disproportionately used by high-income households. The standards will save consumers money.

According to the DOE's 2020 Residential Energy Consumption Survey (RECS), nearly a third of households with a gas tankless water heater (31%) have an annual income of \$150,000 or more (compared to 16% of households with a gas tank water heater and 9% of households with an electric tank water heater). Lower-income households have disproportionately few gas tankless water heaters; they use tank water heaters (whether gas or electric) at even higher rates than the public overall. And senior-only households are no more likely than other households to use a gas tankless water heater, the federal data show.

DOE estimates that the new standards for gas tankless water heaters will lower total costs for households that choose these products by an average of \$112 over the life of a water heater.



Myth: Gas tankless water heaters are frequently used in apartments and smaller homes, which are more likely to be occupied by low-income people and seniors.

Fact: Gas tankless water heaters are more often used in larger homes.

As of the 2020 RECS survey, only 2.6% of apartments used a gas tankless water heater (compared to 4.7% of single-family homes). The average square footage of homes with gas tankless water heaters is 2,389 square feet (compared to 1,925 square feet for gas tank water heaters and 1,636 square feet for electric tank water heaters).

Myth: The standards will cause consumers to switch to less-efficient gas tank units.

Fact: Market dynamics make it very unlikely that consumers or builders will pick a gas tank water heater in place of a tankless unit in response to the new standards.

In new construction, builders often choose gas tankless water heaters because they can be cheaper to install than a gas tank model and the builder can market the amenity of “endless hot water.” Builders often select among the less-efficient segment of tankless models because it saves them a little money, while the residents bear the cost of higher gas bills over the 20-year life of the water heater. Gas tankless options will still often be the cheaper choice among gas models for new construction when new standards come into force because the standards for gas tank water heaters require a similar percentage efficiency improvement as those for gas tankless units. Gas tankless water heaters’ smaller footprint and ability to provide endless hot water will also continue to make them attractive to builders.

For existing homes, some consumers today are choosing to replace their gas tank water heater with a gas tankless unit—because of the amenity it provides—even though that option is significantly more expensive than installing another gas tank unit (since new venting is required regardless of the efficiency of the tankless unit). DOE estimates that the cost to switch to a gas tankless water heater is about 65% higher than installing another gas tank unit. With the new standards, switching to a gas tankless unit will continue to be 65% more expensive. Therefore, it is very unlikely that the new standards will impact the rate of consumers choosing to switch to gas tankless water heaters.

For households with an existing gas tankless water heater, it can be costly to switch to a gas tank unit because it requires replacing the venting and, in some cases, moving the water heater to a larger space. Many consumers would also be reluctant to give up the amenity of endless hot water, making it unlikely that a household with a tankless water heater will switch to a gas tank unit due to the new standards.

Myth: Unlike electric water heaters, gas tankless water heaters can still provide hot water when the power goes out.

Fact: Gas tankless water heaters cannot operate during a power outage.

Gas tankless water heaters use electronic ignition, which means they cannot operate if the power goes out. Gas tankless water heaters also do not have any stored hot water since they heat water on demand. Electric tank water heaters (including heat pump water heaters) cannot heat water during a power outage, although they can continue to supply the existing hot water in the storage tank.

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